

***Falcaustra belemensis* n. sp. (Nematoda, Kathlaniinae)
from the Lizard *Neusticurus bicarinatus* L. (Teiidae) of Brazil**

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Résumé. — *Falcaustra belemensis* n. sp. se distingue des autres espèces sud-américaines, à l'exception de *F. tikasinghi* (Schroeder, Schmidt & Everard, 1977) n. comb., par l'absence d'une ventouse caudale chez les mâles. Ces deux espèces se distinguent l'une de l'autre par la présence (*F. tikasinghi*) ou l'absence (*F. belemensis*) d'une vésicule cuticulaire bien développée autour de la zone céphalique. *F. tikasinghi*, décrit chez une tortue de la Trinité, est trouvé chez la même espèce d'hôte à Belem, Brésil.

Abstract. — *Falcaustra belemensis* n. sp. is distinguished from all other South American species in the genus except *F. tikasinghi* (Schroeder, Schmidt & Everard, 1977) n. comb. by the lack of a caudal sucker in males. These two species are distinguished by the presence (*F. tikasinghi*) or absence (*F. belemensis*) of a conspicuous vesicle-like inflation of the body cuticle on the cephalic end. *F. tikasinghi*, described originally from a turtle of Trinidad, is reported from the same turtle species at Belem, Brazil.

Two *Falcaustra* spp. were collected from reptiles examined in the vicinity of Belem, Brazil. One represents an undescribed species and the other is reported from a new locality.

***Falcaustra belemensis* n. sp.**

TYPE SPECIMENS : 1 ♂ holotype, 1 ♀ allotype, 1 ♀ paratype (MNHN no. 152RL).

HOST : *Neusticurus bicarinatus* L. (Teiidae).

LOCALITY : Belem, Brazil.

OTHER SPECIMENS : 1 ♂, 1 ♀ from *N. bicarinatus*, Belem, Brazil (MNHN no. 20CA).

Cephalic extremity with three small lips each supported by two thick papillary stalks. Dorsal and ventral stalks each with two papillae, lateral stalks each with single papilla and amphid. Inner labial papillae not present. Buccal cavity large, supported by thick cheilostomal ring attached to anterior end of oesophagus. Cheilostomal struts not present. Anterior extremity of oesophagus forming three large tooth-like protuberances. Oesophagus

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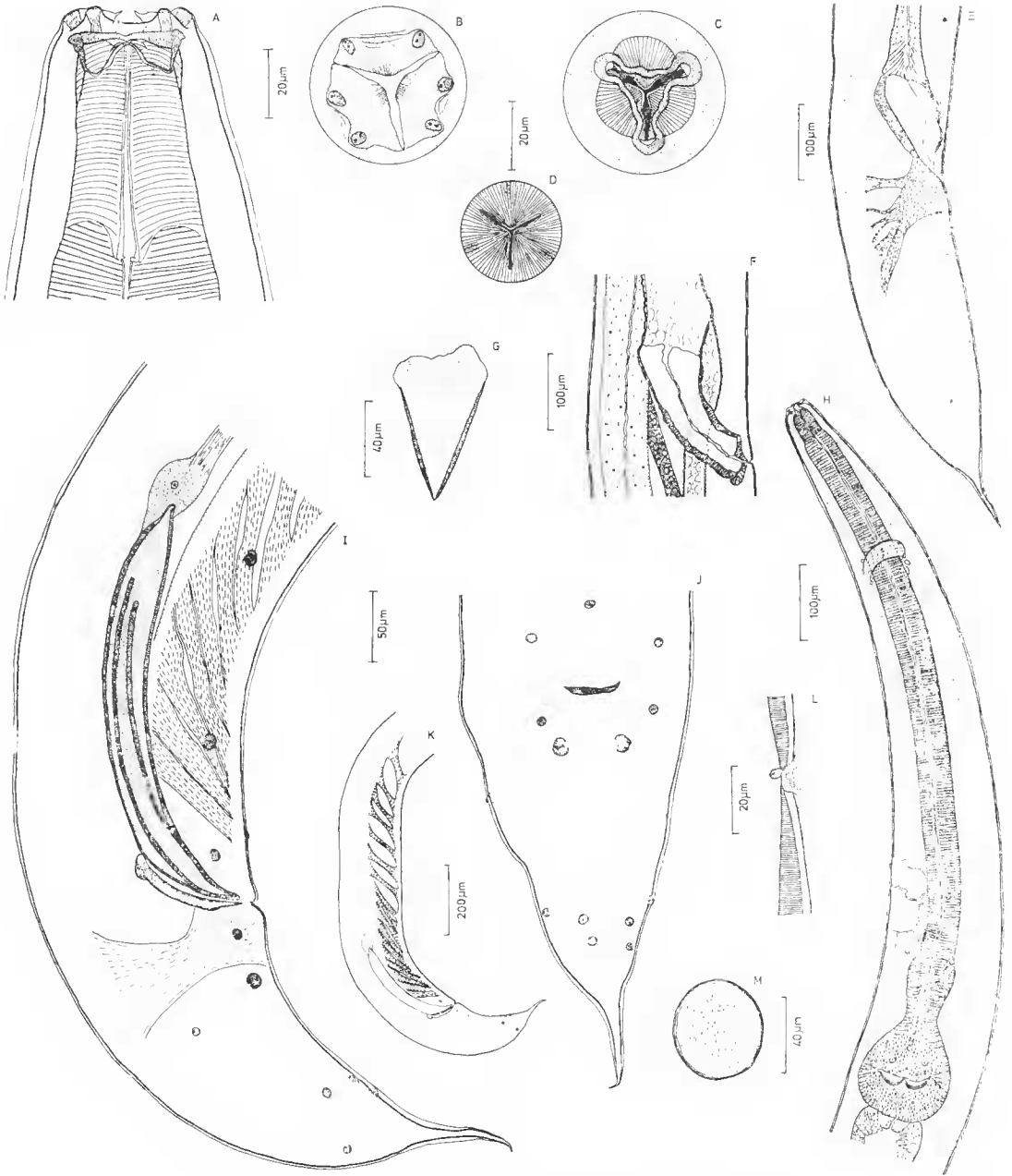


FIG. 1. — *Falcaustra belemensis* n. sp. : A, cephalic extremity of female, dorsal view ; B, *idem*, apical view ; C, *idem*, optical section through buccal cavity showing cheilostomal ring ; D, *idem*, section through pharyngeal portion of oesophagus ; E, tail of female, lateral view ; F, vagina, lateral view ; G, gubernaculum, dorsal view ; H, anterior end of male, lateral view ; I, caudal end of male, lateral view ; J, *idem*, ventral view ; K, *idem*, lateral view showing subventral musculature ; L, anterior deirid and lateral ala of male, dorsoventral view ; M, egg from uterus.

divided into short, muscular pharyngeal portion, elongate corpus, slightly swollen isthmus, and thick bulb with prominent valves. Slender lateral alae present in males from level of anterior portion of œsophagus to just before anus; absent in female. Anterior deirids conspicuous, located just anterior to excretory pore. Excretory pore minute, opening into large vesicle from which arise two small posteriorly directed lateral canals. One large cellular mass with two conspicuous nuclei observed dorsal to vesicle.

Male (holotype)

Tail conical and sharply pointed, anterior three-quarters markedly thicker than posterior portion. Ten pairs and one unpaired caudal papillae present as in fig. 1 I-J. Unpaired ventral papilla markedly anterior to anus (approximately 50 μ m). Phasmids not observed. Subventral preanal zone with 17 prominent pairs of muscles. Caudal sucker absent. Gubernaculum small, triangular in dorsal view. Spicules short, relatively thick, sharply pointed distally.

Female (allotype)

Tail relatively thick in anterior portion, posterior sixth in form of spike. Vulva forming inconspicuous opening at approximately posterior third of body. Vagina anteriorly directed, forming muscular tube 463 μ m long, first three-quarters lined with thick cuticle. Uteri opposed, ovary of anterior uterus located posterior to vulva, ovary of posterior uterus located anterior to vulva. Eggs oval, relatively thin-shelled, 34-44 μ m wide and 47-59 μ m long (based on 5 specimens in the uteri), containing embryos to blastula stage of development.

Dimensions

Holotype Male : total length 6.8 mm; œsophagus 984 μ m long (pharyngeal portion 41 μ m, corpus 731 μ m, isthmus 84 μ m, bulb 128 μ m); nerve ring 225 μ m, and excretory pore 688 μ m from anterior extremity; tail 285 μ m, spicules 314 μ m and gubernaculum 82 μ m long. — *Allotype Female* : total length 11.0 mm; œsophagus 1 425 μ m long (pharyngeal portion 50 μ m, corpus 1 094 μ m, isthmus 106 μ m, bulb 175 μ m); nerve ring 356 μ m, excretory pore 1 019 μ m, and vulva 7.1 mm from anterior extremity; tail 538 μ m long. — *Paratype Female* : total length 8.7 mm; œsophagus 1 313 μ m long (pharyngeal portion 50 μ m, corpus 988 μ m, isthmus 94 μ m, bulb 181 μ m); nerve ring 325 μ m, excretory pore 944 μ m, and vulva 5.6 mm from anterior extremity; tail 463 μ m long.

Dimensions of the ♂ and ♀ specimen in MNHN 20CA are as follows. — *Male* : total length 8.3 mm; œsophagus 1 130 μ m long; nerve ring 265 μ m and excretory pore 840 μ m from anterior extremity; tail 322 μ m, spicules 463 μ m and gubernaculum 106 μ m long. — *Female* : total length 16.4 mm; œsophagus 1 580 μ m long; nerve ring 350 μ m, excretory pore 1 170 μ m, and vulva 11.2 mm from anterior extremity; tail 656 μ m long.

COMMENTS

Of the North and South American *Faleastra* only *F. belemensis* n. sp. and the following species lack a caudal sucker in males: *F. elongata* (Baird, 1858) Lent & Freitas, 1941, from *Emys* (Emydidae) and *Ambystoma* (Ambystomatidae), North America; *F. caballeroi* Chabaud & Golvan, 1957, from *Rana* (Ranidae), Mexico; *F. guatemalana* (Caballero, 1953) Chabaud & Golvan, 1957, from *Rana*, Guatemala; *F. inglisi* (Anderson, 1964) Baker,

1980, from *Rana*, Canada; *F. pretiosa* (Ingles, 1936) Freitas & Lent, 1941, from *Rana*, California; *F. rankini* (Walton, 1941) Chabaud & Golvan, 1957, from *Rana*, North America; *F. tikasinghi* (Schroeder, Schmidt & Everard, 1977) n. comb. from *Geoemyda* (Testudinidae), South America.

F. belemensis is easily distinguished from *F. caballeroi*, *F. inglisi*, *F. pretiosa* and *F. rankini* in that these species all have spicules exceeding 800 μm in length whereas those of *F. belemensis* are less than 500 μm long. Similarly *F. tikasinghi* has a conspicuous cephalic inflation of the body cuticle which is absent in *F. belemensis*. *F. guatemalana* (see CABALLERO, 1953) has spicules which are slightly longer (771-798 μm in specimens 9.4-11.0 mm long) and markedly more slender than those in *F. belemensis*. In addition it has 50-52 pairs of subventral caudal muscles in males compared to only 17 pairs in the holotype of *F. belemensis*. *F. elongata* is apparently a larger species (males at least 16.0 mm long according to WALTON, 1932, and CABALLERO & BRAVO HOLLIS, 1938) than *F. belemensis*. Also the oesophageal teeth divide into three points (see WALTON, 1932) whereas in *F. belemensis* they each form a single protuberance. Finally the oesophageal bulb in *F. elongata* is somewhat reduced in size and the tail of males tapers gradually to a point rather than forming a spike-like tip as in *F. belemensis*.

F. belemensis is the first *Falcaustra* reported from the large lizard Family Teiidae. The genus *Neusticurus* includes species adapted to an aquatic environment whereas the majority of species in the family are terrestrial in habits (GUIBÉ, 1970). This may explain the rarity of *Falcaustra* in the Teiidae as these parasites are usually found in aquatic reptiles (i.e. turtles) and amphibians (frogs and salamanders).

***Falcaustra tikasinghi* (Schroeder, Schmidt & Everard, 1977) n. comb.**

MATERIAL EXAMINED : 5 ♂, 1 ♀ (MNHN no. 22CA).

HOST : *Geoemyda punctularia* (Testudinidae).

LOCALITY : Belem, Brazil.

SYN. *Spironoura tikasinghi* Schroeder, Schmidt & Everard, 1977.

This species is transferred to *Falcaustra* because this generic name is preferred over *Spironoura* in modern classification (see CHABAUD & GOLVAN, 1957).

F. tikasinghi is easily distinguished from all other species in the Americas by the presence of a vesicle-like inflation of the body cuticle extending for about 500 μm behind the cephalic extremity, and by the morphology of its markedly thick spicules and large gubernaculum. The males lack a caudal sucker, but there are about 30 paired preanal subventral muscles in specimens examined in the present study. The host reported herein is the same as that reported by SCHOENECKER *et al.* (1977). Belem, Brazil, is near the mouth of the Amazon River approximately 2 000 km from the type locality for *F. tikasinghi* (Trinidad).

The worms examined are slightly larger than those described by SCHOENECKER *et al.* Measurements of 1 ♂ and 1 ♀ from Brazil are as follows. Male : total length 15.9 mm; oesophagus 2.1 mm, tail 470 μm , spicules 620 μm and gubernaculum 385 μm long. Female :

total length 19.1 mm ; vulva 12.4 mm from anterior extremity ; œsophagus 2.35 mm and tail 560 μ m long.

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